The State of New Hampshire
Department of Environmental Services

Michael P. Nolin
Commissioner

August 31, 2005
Letter of Deficiency
DSP#05-027

Mr. Anthony Randall
Provest Land Associates
89 Owl Brook Road
P.O. Box 1226
Ashland, NH 03217

RE: Jackson Pond Dam #173.07, New Hampton

Dear Mr. Randall:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on August 4, 2005. During this visual inspection and/or file review, the following deficiencies were observed:

1. There was minor brush growth on the upstream slope of the embankment;

2. There is a diagonal crack located in the left upstream spillway wing wall;

3. The upstream face of the spillway cap has a few spalled areas and is leaking between the cap and original spillway crest;

4. The contact of the right downstream face of the spillway and concrete abutment wall is eroded;

5. There are two 6 inch steel pipes with flanges cast into the concrete plug which is an abandoned low level outlet. The pipes have minor flow exiting the flanges. According to a 1988 inspection report, these two pipes were installed as pond drains that could be manually operated by removing the flanges;

6. There is a scour hole located at the downstream toe of the dam located beneath the stoplog bay. The hole is approximately 1.5 feet deep, 3 foot wide and extends 2 feet downstream from the toe of the spillway. According to the design plans there should be a rip rap apron at the toe of the spillway;

7. There is a manhole cover located in the right downstream embankment that reportedly contains a low level outlet valve. According to the 1988 inspection report, there is a 10 inch pipe through the road that outlets to the brook for supplying water to the downstream reservoir. Based on the configuration of this pipe and valve box, it is reasonable to assume that there is a 10 inch pipe under full head located within the dam. This configuration is not desirable because in the event that the pipe corrodes, or a pipe joint fails, it could lead to an uncontrolled release of water from the dam; and

8. An Emergency Action Plan (EAP) was submitted and approved on December 7, 2001. The EAP was last tested in September of 2004.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

November 1, 2005:

1. Remove the brush from the upstream slope of the dam;

2. Repair the diagonal crack located in the left upstream wing wall;

3. Repair the spalled concrete located on the upstream face of the spillway cap and seal the joint between the cap and original spillway crest. At the time of the inspection the owners expressed interest in removing the concrete cap. Please be advised that a permit would be required for that spillway modification;

4. Repair the concrete joint located along the downstream right side of the spillway where it contacts the right bridge abutment wall;

5. The upstream end of the two 6 inch pipes should be located, inspected and repaired if necessary to ensure that they operate as intended as pond drains;

6. Repair the scour hole located at the downstream toe of the spillway. At a minimum rip rap scour protection should be placed as depicted on the design drawings (copy enclosed) underlain by a filter fabric to help prevent the piping of foundation material from underneath the spillway. It is recommended that an engineer conduct a seepage analysis to determine if uplift pressures just downstream of the concrete spillway are significant enough to warrant further upgrades to the existing spillway and discharge channel;

7. Investigate the condition of the 10 inch water supply pipe and repair as necessary returning it to an operable condition. It is recommended that the valve box be relocated to the upstream side of the dam; and

8. Update and test the EAP as Update and test the EAP as necessary. If you have questions relative to the current standing of your EAP please contact Bethann McCarthy, P.E., EAP Coordinator at 271-3406.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the bottom of the cover page.

Sincerely,

COPY

Jeffrey M. Blaney, P.E.
Dam Safety Engineer

Attachments DB8, DB13, Sketch Illustrating Deficiencies
cc: Gretchen R. Hamel, Legal Unit Administrator
Bethann McCarthy, P.E., EAP Coordinator
Town of New Hampton
Certified # 7000 1670 0000 0588 6493
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